MONTHLY WEATHER REVIEW.

Editor: Prof. CLEVELAND ABBE.

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INTRODUCTION.

The REVIEW for May, 1895, is based on reports from 3,315 stations occupied by regular and voluntary observers. These reports are classified as follows: 148 reports from Weather Bureau stations; 35 reports from U. S. Army post surgeons; 2,794 monthly reports from State Weather Service and voluntary observers; 30 reports from Canadian stations; 96 reports through the Southern Pacific Railway Company; 521 marine reports through the cooperation of the Hydrographic Office, Navy Department, and New York Herald Weather Service; weekly or monthly reports from 30 U. S. Life-Saving stations; monthly reports from local services established in all States and Territories; and international simultaneous observations. Trustworthy newspaper extracts and special reports have also been used.

The WEATHER REVIEW is prepared under the general editorial supervision of Prof. Cleveland Abbe. Unless otherwise specifically noted, the text is written by the Editor, but the statistical tables are furnished by the Division of Records and Meteorological Data, in charge of Mr. A. J. Henry, chief of that division.

CHARACTERISTICS OF THE WEATHER FOR MAY, 1895.

The barometric pressure was generally in excess east of the Rocky Mountains, and with this there was an excess of sunshine, deficiency of rainfall, and excess of temperature. Injurious frosts occurred in many States, especially on the 13th, 14th, 19th, 20th, and 21st. The local storms and tornadoes on the 3d were a special feature of this month. The stage of waters in the Mississippi and tributaries was generally low.

ATMOSPHERIC PRESSURE (*in inches and hundredths*).

The distribution of mean atmospheric pressure reduced to sea level, as shown by mercurial barometers not reduced to standard gravity and as determined from observations taken daily at 8 a. m. and 8 p. m. (seventy-fifth meridian time), is shown by isobars on Chart II. That portion of the reduction to standard gravity that depends on latitude is shown by the numbers printed on the right-hand border.

During the current month the highest mean pressures were in the south Atlantic and east Gulf States. The extreme highest were: Charleston, 30.11; Lynchburg, Raleigh, Knoxville, and Chattanooga, 30.10; Washington and Hatteras, 30.09. The lowest mean pressures were in New Mexico, Arizona, and southern California, as also in Assinniboia. The extreme lowest were 29.78 at Yuma and 29.80 at Calgary.

As compared with the normal for May the mean pressure for the current month was decidedly in excess over the whole country east of the Mississippi. The maximum excesses were: Parkersburg, Lynchburg, and Lexington, 0.09; Nantucket, New London, Cincinnati, St. Louis, Raleigh, and Augusta, 0.08. Pressure was slightly deficient in the upper Missouri Valley and British provinces. The maximum deficits were: Edmonton and Calgary, 0.08; Yuma, 0.06.

As compared with the preceding month of April the pressures reduced to sea level show a rise in the Atlantic and east Gulf States; the maximum rises were: 0.10 at Father Point, 0.09 at Quebec, and 0.08 at Knoxville and Cairo. Elsewhere the pressure generally fell; the maximum falls were: Williston and Keeler, 0.13; Minnedosa, St. Vincent, Duluth, Salt Lake City, Winnemucca, and Yuma, 0.12.

HIGH AND LOW AREAS.

By PARK MORRILL, Forecast Official.

The storm areas of this month were all of a kind that may be termed the Northwest type. Of these areas of low pressure perhaps all have their ultimate origin over the North Pacific Ocean, although some are first observed in the western Canadian provinces, and occasionally one forms, possibly as a secondary to a more northerly main depression, in the Dakotas or Minnesota. Three of the latter sort are included in the low areas of this month. The general course of storms of this character is along the arc of a circle, first moving southeast into the upper Missouri and Mississippi valleys, then east across the Lake region or central valleys, and lastly northeast, most commonly into the Gulf of St. Lawrence, whence they disappear over the Atlantic Ocean.

The movements of the various centers of low pressure are shown in detail on Chart I. An examination of the tracks indicates that, except for a secondary which formed in extreme western Nebraska, and after remaining nearly stationary for three days in Nebraska and Kansas, finally was absorbed into another depression, and for a further temporary incursion of area II into Kansas, all the tracks lie north of the fortieth parallel. It is rather remarkable that no storm of the Southwest type was experienced during the entire month.

The tracks of high pressure areas for the month, as shown on Chart IV, are much more widely distributed. Area I was remarkable for its southwest movement along the Atlantic coast from the 1st to the 4th. The persistence of high pressure on the Pacific coast is a noticeable feature of the month.